

Nuclear Explosion Monitoring Research and Engineering (NEMR&E) Program
Quarterly Report DOE DE-FC52-06NA27319

Research Title: “Advanced Waveform Simulation for Seismic Monitoring Events”

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Reporting Period: February 1, 2007-April 30, 2007

Technical Progress:

A. Description of Activities

During this funding period, Teh-Ru Alex Song worked on the development of user-friendly codes for use by the community (Phase II, Idea 1). He will be leaving us shortly for a post-doc position and we wanted to get this done. The code uses a 2D Cagniard-deHoop source generation model and produces regional synthetics in 2D and has an extended ability to generate approximate 3D synthetics. A paper has been published on this research “Low Velocity Zone Atop the Transition Zone in the Western US from S Waveform Triplication.” Thorne Lay and Arthur Rodgers are presently running this code.

B. Progress – on track.

C. Progress is following the stated Work Statement, see Abstract of a paper already published.